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10/087,576	03/01/2002	Richard P. Mangold	884.622US1	3907

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EXAMINER

DADA, BEEMNET W

ART UNIT

PAPER NUMBER

2135

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,576

Applicant(s)

MANGOLD ET AL.

Examiner

Beemnet W. Dada

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in reply to an amendment filed on March 09, 2006. Claims 5 and 20 have been amended. Claims 1-25 are pending.

Response to Arguments

2. Applicant's arguments filed March 09, 2006, with respect to 35 USC 102 rejections of claims 1-19 have been fully considered but they are not persuasive.

3. With respect to claims 1 and 5, applicant argues that Gray does not teach inserting a new key or any information into a data stream, and therefore Gray fails to teach replacing non-compliant data with complaint data. Examiner disagrees.

4. In response to applicant's argument that the reference fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., inserting a new key into the data stream) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Examiner would point out that the terms "non-complaint data" and "complaint data" are not defined in the specification. It is interpreted by the examiner, that changing the synchronization bit from a '0' to a '1' or vice-versa, as key information so that the correct encryption/decryption keys can be used meets the limitation where a non-compliant data is replaced with compliant data [see Gray, column 4, lines 46-68 and column 5, lines 7-35].

5. With respect to claims 11 and 14, applicant argues that Gray fails to teach replacing key information with complaint data in a data stream. Examiner disagrees.

6. Examiner would point out that Gray teaches changing the synchronization bit (i.e., key information) from a '0' to a '1' or vice-versa, as key information so that the correct encryption/decryption keys can be used. It is understood by the examiner in view of the specification that key information is any information useful to any cryptographic algorithm. In this case the synchronization bit is used in synchronizing the correct encryption/decryption keys and therefore, it is the information used in combination with the encryption/decryption keys for encryption and decryption of data [see Gray, column 4, lines 46-68 and column 5, lines 7-35].

7. Applicant's arguments with respect to claims 20-25 have been considered but are moot in view of the new ground(s) of rejection.

8. With respect to claims 8-10, applicant does not present any arguments.

9. Applicant's arguments filed March 09, 2006, with respect to 35 USC 101 rejections of claims 1-19 have been fully considered and are persuasive and therefore the rejection has been withdrawn.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 20-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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12. Claim 20 is directed to a data structure. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. Thus, while the claimed invention may be labeled as data structure, it is in fact non-functional descriptive material (i.e., abstract idea). Claim 20 is rejected as being non-functional descriptive material (i.e., abstract idea). Claims 21-25 depend on claim 20 and are rejected under the same rationale.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray et al. US Patent 5,805,705 (hereinafter Gray).

15. As per claims 1 and 14, Gray teaches a method, comprising:

parsing a data stream to find a predefined synchronization point (i.e., header, see figure 5) within the data stream (i.e. receive packet and read header field, column 5, lines 23-29); and

placing non-compliant data near the synchronization point in the data stream (i.e., placing synchronization bit (KSB) near the header, column 4, lines 46-58);

wherein the data stream is decodable by a compliant decoder, after the non-compliant data is replaced with compliant data (i.e., decrypting data with the key, which is changed when the synchronization bit changes) [column 5, lines 23-35].

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16. As per claim 5, Gray teaches a method, comprising:

receiving a portion of a data stream, parsing the portion of the data stream to find a synchronization point within the data stream (i.e. receive packet and read header field, column 5, lines 23-29);

retrieving non-compliant data near the synchronization point [column 4, lines 46-58 and column 5, lines 23-30];

replacing non-complaint data in the data stream (i.e., replacing synchronization bit) [column 4, lines 46-68 and column 5, lines 7-35]; and

decrypting the portion of the data stream [column 5, lines 30-35].

17. As per claim 8, Gray teaches a system, comprising:

an authoring device (i.e., source node) to use key information to encrypt a portion of a data stream [column 2, lines 50-67]; and

a consumption device (i.e., destination node) in communication with the authoring device, the consumption device to use the key information to decrypt the portion of the data stream [column 2, lines 50-67].

18. As per claim 11, Gray teaches a system, comprising:

an authoring device to create a data stream [column 2, lines 50-56];

an encryption tool to embed key information near each synchronization point in the data stream and to encrypt a portion of the data stream associated with each synchronization point [column 4, lines 49-67]; and

a consumption device to retrieve key information near each synchronization point in the data stream and to replace the key information with compliant data and to use the key information to decrypt the data stream [column 5, lines 23-34].

19. As per claim 2, Gray further teaches the method further comprising:
encrypting a portion of the data stream, and transmitting the portion of the data stream [column 5, lines 7-16].
20. As per claim 3, Gray further teaches the method further comprising:
decrypting the portion of the data stream [column 5, lines 23-34].
21. As per claims 4 and 6, Gray further teaches the method further comprising:
wherein the non-compliant data is key information (i.e., KSB value associated with current or next key value) that is used in encrypting and decrypting [column 4, lines 49-57].
22. As per claims 7, 9, 10, 12 and 13, Gray further teaches the method further comprising:
replacing the non-complaint data near the synchronization point with complaint data, and decoding the portion of the data stream [column 5, lines 23-34].
23. As per claims 15 and 16, Gray further teaches the method further comprises: parsing the second data stream to find each PES header, embedding key information into each portion of the second data stream after each PES header, and encrypting each portion of the second data stream [column 4, lines 47-67].

24. As per claims 17-18 and 19, Gray further teaches the method further comprises:
- retrieving key information from a portion of the second data stream, decrypting the portion of the second data stream with the key information, and replacing the key information with compliant data in the portion of the second data stream [column 5, lines 17-35].

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al US Patent 5,805,705 (hereinafter Gray).

27. As per claims 20 and 24-25, Gray teaches
- a data structure, comprising:
- a header (figure 5, header section);
- key information associated with the header for use in decryption (figure 5, key synch. Bit); and
- a payload associated with the header, the payload capable of being encrypted using the key information [figure 5, data field and column 5, lines 7-16]. Gray is silent on key information separate from the header. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a key information separate from the header, since it

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has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, USPQ 70.

28. As per claims 21 and 22, Gray further teaches the method further comprising:
replacing the non-complaint data near the synchronization point with complaint data, and
decoding the portion of the data stream [column 5, lines 23-34].

29. As per claim 23, Gray further teaches the method further comprises:
retrieving key information from a portion of the second data stream, decrypting the
portion of the second data stream with the key information, and replacing the key information
with compliant data in the portion of the second data stream [column 5, lines 17-35].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W. Dada whose telephone number is (571) 272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beemnet Dada

May 6, 2006


HOSUK SONG
PRIMARY EXAMINER